

Advanced
Construction
Technologies

Waterstop



SPETEC I.T.S. KIT

Two Component Polyurethane System

Product Identifier

Product Name

ACRYLATE GEL PUMP

SPETEC® ITS is an injection tube system that allows injection of cold and construction joints via a pre-installed injection canal. SPETEC® ITS is placed in the joint during construction. It acts as a canal for the injection resin which will, when in contact with water, expand and seal the joint permanently.

Supplier Details

Alchatek
4508 Bibb Blvd
Tucker, GA 30084
T: (404) 618-0438

Emergency Phone Numbers

Call CHEMTREC
Day or Night

1-800-424-9300
+1 703-527-3887

Description

SPETEC® ITS is an injection tube system that allows injection of cold and construction joints via a pre-installed injection canal. SPETEC® ITS is placed in the joint during construction. It acts as a canal for the injection resin which will, when in contact with water, expand and seal the joint permanently.

The SPETEC® ITS can be injected with AP Seal 500, SPETEC® PUR F400 or SPETEC® AG200.

Uses

- SPETEC® ITS is installed in construction joints in concrete, pipe penetrations and voids between secant piles walls and slabs, and so on.
- SPETEC® ITS can be combined with other preventative waterproofing systems like swelling bars and PVC water stops.
- The joint can be injected with the appropriate SPETEC® Injection resin preventatively after the concrete has fully cured or in case a leak appears

Advantages

- Monolithic waterstop seal.
- Effective in applications with honeycomb concrete.
- Will not fold or crush with concrete weight.
- Can be injected under flowing water.
- Chemical resistance once injected.
- With NSF approved resin, can be installed in a potable water application.
- Easy to install, no special tools required.
- Complete system, delivered with all necessary accessories.
- The hose can be adjusted to the correct length on site.
- Due to the metal spiral core the hose keeps its inner diameter when bended.

SPETEC I.T.S. KIT

TWO COMPONENT POLYURETHANE SYSTEM

- Low pressure injection possible.
- Can be injected preventatively or when leakages actually occur.
- After injection the joint is permanently sealed.
- Injection is done continuously over the porous surface of the tube, not via points or slits resulting in a more even distribution of the resin in the joint.
- No leak, no injection necessary.

There is no interruption of the construction activities when SPETEC® ITS is installed.

Application

Note: the following are a few typical application descriptions. In case of other jobsite parameters, please contact our technical department.

PREPARATION OF THE SUBSTRATE

Clean the surface of the hardened concrete on which the SPETEC® ITS will be installed. If the surface is too rough, level it out with SPETEC® WT400

PREPARATION OF THE PRODUCT

- Cut the SPETEC® ITS to the required length depending on the actual joint condition.
- The maximum length of the hose should not be more than 20' (6 m).
- Make sure the cut edges are smooth.
- At both ends, screw the elbow pieces onto the SPETEC® ITS tube.
- Cut the reinforced injection tube to the appropriate length and connect it to the other end of the elbow piece. Seal the end of the PVC injection tube by using the closing caps.

APPLICATION

Installation of the SPETEC® ITS

- Lay the SPETEC® ITS over the joint and secure it with the metal clips.
- Nail the clips about each foot (30 cm). Make sure that the injection hose is in contact with the concrete surface over its full length.
- The PVC injection tube can be connected to the steel wires or rolled into a plastic box that will be encased in the concrete.
- Make sure that at the over laps of 2 hoses there is a distance about 1" (2-3 cm) between the hoses to avoid contamination during injection.
- The distance between the injection hoses at the overlap should not be more than 3" (7 cm).
- There must be a minimum of 3" (7 cm) concrete cover on both sides of the SPETEC® ITS injection hose.

SPETEC I.T.S. KIT

TWO COMPONENT POLYURETHANE SYSTEM

Injection of SPETEC® ITS

- Before injection, make sure you have the correct in-and outlet of the hose. This can be verified by injecting water into the inlet and verify the others side of the hose.
- It is recommended to inject SPETEC® ITS with AP Seal 500, SPETEC® PUR F400 or SPETEC® AG200.
- Prepare the resin according to the information provided on the respective Technical Data Sheet.
- It is recommended to inject water in the hose first. This to make sure the relevant in-and outlets are found and to make sure there is enough water present in the joint so the resin can react.
- Use a separate water pump to pre-inject the water.
- Connect a conical packer to the inlet of the injection tube.
- Make sure the packer is well secured in the reinforced high-pressure tube.
- Connect the pump to the packer and start injecting the tube. This can be done at low pressure. If there is water inside the SPETEC® ITS, this will come out at the other end of the tube.
- When resin starts to come out on the other side of the SPETEC® ITS, close the outlet by blocking the PVC tube.
- Gently increase the pressure on the pump so the resin can flow from the tube into the joint.
- When the joint is saturated with resin, stop the pump and close off the inlet of the injection tube.
- Allow the resin to fully react before removing the blockages of the injection hoses.

REQUIRED TOOLS

No special tools are required to install the SPETEC® ITS. For injecting the SPETEC® ITS a pump is needed. This pump can be manual, pneumatic or electric. Conical packers to connect the pump to the injection tube outlets.

CLEANING AND MAINTENANCE

After injection clean all equipment and tools with SPETEC® PUMP CLEANER. In case of doubt contact one of the Alchatek technicians.

COMPLIMENTARY PRODUCT

Appropriate injection resin: AP SEAL 500, SPETEC® PUR F400, SPETEC® AG200. Must be ordered separately. See Technical Data Sheets.

ADVICE / FOCAL POINTS

SPETEC® ITS can only be installed in lengths of maximum 20' (6 m). At the overlaps a distance of 2.8 in (7 cm) has to be observed between the injection hoses, this to avoid cross contamination during injection.

Technical Data

SPETEC® ITS is a yellow circular injection tube consisting of

- A reinforcing steel spiral wire that prevents that the hose would collapse under the weight of the concrete during concreting, ensuring that the injection canal does not get blocked.
- A non-woven filtrating membrane preventing the small cement particles to enter the injection tube during concreting and allowing the resin to flow out over the entire skin of the injection tube.
- A protective outer synthetic membrane

SPETEC I.T.S. KIT

TWO COMPONENT POLYURETHANE SYSTEM

Outside Diameter	0.47 in (12 mm)
Inside Diameter	0.31 in (8 mm)
Maximum Length per segment	20 ft (6 meter)
Weight per meter	0.05 lbs/ft (71 g/m)
Filter Pore Diameter	35 µm (0.00137795 in)
Operating temperature	Max. 158°F (70°C)
Colour	yellow

Estimating Quantities

ITS is installed per foot or meter. Anchoring clips to be placed approximately each foot (30cm). Two elbow pieces and two reinforced PVC tube are required for each section of ITS.

Packaging

SPETEC® ITS is supplied in kits containing all necessary accessories for proper installation. The actual injection tube has to be adjusted on site in lengths of maximum 20 ft (6 meters).

Injection tube	5 x 20' (6m) lengths
Reinforced PVC tube	8 ¼' (2.5m) + 10 closing caps
Pallet Packaging:	1 pallet contains 40 kits of 100' (30m) totalling 4,000' (1200m).

Delivery per pallet: 1 pallet contains 40 kits of 100 ft (30 meters) totalling 4,000 ft (1200 meter).

Weight per kit	8.4lbs. 3,8 kg (net)
Weight per pallet	334 lbs. 152 kg (net)

Storage and Shelf Life

Storage: on pallets from the floor. Unlimited shelf time in a dry place.

Safety Precautions

Avoid contact with eyes and skin, always use personal protective equipment in compliance with local regulations. Read the relevant Safety Data Sheet before use. Safety Data Sheets are available on Alchatek.com. When in doubt contact Alchatek Technical Service.